

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/048196 A3

(51) International Patent Classification⁷: **G06T 7/20**
(21) International Application Number:
PCT/GB2004/004687

(22) International Filing Date:
8 November 2004 (08.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0326375.3 12 November 2003 (12.11.2003) GB

(71) Applicant (for all designated States except US): **BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY** [GB/GB]; 81 Newgate Street, London, Greater London EC1A 7AJ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **XU, Li-Qun** [GB/GB]; 34 Dodson Vale, Kesgrave, Ipswich, Suffolk IP5 2GT (GB). **LANDABASO, Jose Luis** [ES/ES]; C/Dolors Montserda 1 Vidal, 14 2n 1a, Sant Quirze Del Valles, E-08192 Barcelona (ES).

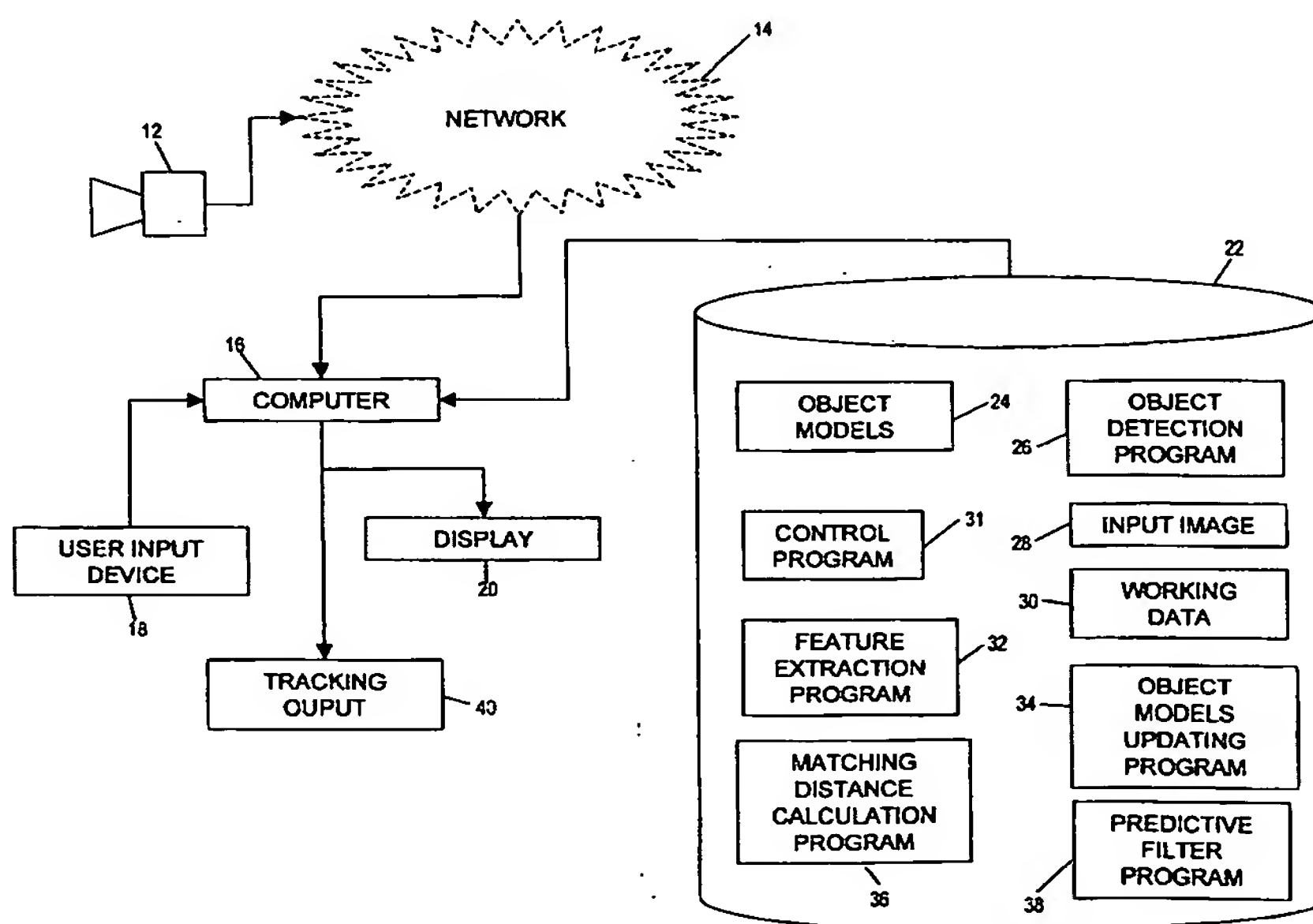
(74) Agent: **LLOYD, Barry, George, William**; BT Group Legal, Intellectual Property Department, PP: C5A, BT Centre, 81 Newgate Street, London, Greater London EC1A 7AJ (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: **OBJECT TRACKING WITHIN VIDEO IMAGES**



(57) Abstract: This invention provides an object tracking method and system for tracking objects in video frames which takes into account the scaling and variance of each matching feature. This provides for some latitude in the choice of matching feature, whilst ensuring that as many matching features as possible can be used to determine matches between objects, thus giving increased accuracy in the matching thus determined. A parallel matching approach is used, and heuristic rules employed to account for occlusions between objects.

WO 2005/048196 A3



Published:

— with international search report

(88) Date of publication of the international search report:
29 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.